AMENDMENT

In the claims:

Claims 1-50 (canceled)

51. (new) A chimeric or humanized anti-α5β1 integrin antibody comprising:

a heavy chain variable region comprising an amino acid sequence having at least 95% identity to a sequence selected from the group consisting of SEQ ID NOs: 1, and 16;

a light chain variable region comprising an amino acid sequence having at least 95% identity to a sequence selected from the group consisting of SEQ ID NOs: 7, and 18; and

wherein the source of the constant region is a human IgG.

52. (new) The chimeric or humanized anti-α5β1 integrin antibody of claim 51, wherein the source of the constant region is human IgG4 or IgG2M3.

53. (new) The chimeric or humanized anti-α5β1 integrin antibody of claim 52, wherein the source of the constant region is human IgG4.

54. (new) The chimeric or humanized anti-α5β1 integrin antibody of claim 52, wherein the heavy chain variable region sequence comprises SEQ ID NO: 1, and the light chain variable region sequence comprises SEQ ID NO: 7.

55. (new) An anti-α5β1 integrin antibody comprising:

a heavy chain comprising an amino acid sequence having at least 95% identity to a sequence selected from the group consisting of SEQ ID NOs: 1, 16, 20, 25, 28, and 31;

a light chain comprising an amino acid sequence having at least 95% identity to a sequence selected from the group consisting of SEQ ID NOs: 7, 18, 22, 26, and 32; and

wherein the antibody inhibits angiogenesis stimulated by VEGF.

56. (new) The anti-α5β1 integrin antibody of claim 55, wherein the light and heavy chain polypeptide sequences comprise amino acid sequences having at least 95% identity to SEQ ID NOs: 26 and 25.

57. (new) The anti-α5β1 integrin antibody of claim 55, wherein the light and heavy chain polypeptide sequences comprise amino acid sequences having at least 95% identity to SEQ ID NOs: 28 and 26.

58. (new) The anti-α5β1 integrin antibody of claim 55, wherein the light and heavy chain polypeptide sequences comprise amino acid sequences having at least 95% identity to SEQ ID NOs: 32 and 31.

59. (new) A chimeric or humanized anti-α5β1 integrin antibody comprising:
a heavy chain comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 20, 25, 28, and 31; and
a light chain comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 22, 26, and 32.

60. (new) The chimeric or humanized anti-α5β1 integrin antibody of claim 59, wherein the heavy chain polypeptide sequence comprises SEQ ID NO: 25 and the light chain polypeptide sequence comprises SEQ ID NO: 26.

61. (new) The chimeric or humanized anti-α5β1 integrin antibody of claim 59, wherein the heavy chain polypeptide sequence comprises SEQ ID NO: 28 and the light chain polypeptide sequence comprises SEQ ID NO: 26.

62. (new) The chimeric or humanized anti-α5β1 integrin antibody of claim 59, wherein the heavy chain polypeptide sequence comprises SEQ ID NO: 31 and the light chain polypeptide sequence comprises SEQ ID NO: 32.

63. (new) A pharmaceutical composition comprising an anti-α5β1 integrin antibody according to any one of claims 51, 55, or 59, and a physiologically acceptable carrier.

64. (new) A method for treating an ocular disease resulting in vascularization, said method comprising administering a dose of a pharmaceutical composition comprising an effective amount of an anti-$\alpha 5\beta 1$ integrin antibody according to any one of claims 51, 55, or 59, and a physiologically acceptable carrier.

65. (new) The method of claim 64, wherein the ocular disease is selected from the group consisting of macular degeneration, diabetic retinopathy, and choroidal neovascularization.

66. (new) The method of claim 64, wherein the ocular disease is macular degeneration.

67. (new) The method of claim 64, wherein the ocular disease is associated with secretion of VEGF.

68. (new) The method of claim 64, wherein the treatment comprises intravenous injection.

69. (new) The method of claim 64, wherein the treatment comprises intravitreal injection.

70. (new) The method of claim 69, wherein the effective amount of anti-$\alpha 5\beta 1$ integrin antibody in each dose is at least about 100 μg.

71. (new) The method of claim 69, wherein the effective amount of anti-$\alpha 5\beta 1$ integrin antibody in each dose is at least about 300 μg.

72. (new) The method of claim 69, wherein the treatment comprises intravitreal injection into one eye, whereby the antibody contacts both eyes.

73. (new) A nucleic acid encoding a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 2-6, 8-12, 16, 18, 20, 22, 25, 26, 28, 31, and 32.

74. (new) A vector comprising at least one nucleic acid sequence selected from the group consisting of SEQ ID NOs: 15, 17, 19, 21, 23, 24, 27, 29, and 30.

75. (new) The vector of claim 74, wherein the nucleic acid sequence comprises SEQ ID NOs: 23 and 24.

76. (new) The vector of claim 74, wherein the nucleic acid sequence comprises SEQ ID NOs: 27 and 24.

77. (new) The vector of claim 74, wherein the nucleic acid sequence comprises SEQ ID NOs: 29 and 30.

78. (new) A cell transformed by an expression vector comprising one or more of the nucleic acids comprising a sequence selected from the group consisting of SEQ ID NOs: 15, 17, 19, 21, 23, 24, 27, 29 and 30.